Kansas'
Cooperative Agriculture Pest Survey
Cooperative Agreement: 10-8453-1223-CA
Period Covering: 7/1/10-6/30/11

Annual
CAPS Infrastructure and Fiscal Report
July 1, 2010 through June 30, 2011

This report summarizes the activities conducted during the agreement's annual work period, July 1, 2010 through June 30, 2011.

Jeffrey W. Vogel
State Plant Regulatory Official (SPRO)

COOPERATIVE AGREEMENTS

January 1, 2010-December 31, 2010:

- **Small Grain & Soybean Commodity Survey (continuation from calendar year 2009)**
  - Silver Y Moth, Egyptian Cotton Leafworm, Old World Bollworm, Cereal Leaf Beetle and Maritime Gardensnail in wheat fields.
  - Beneficials- Insidious Flower Bug, Minute Pirate Bug, Damsel Bug, Lacewings and Lady Beetles.
  - Counties: Butler, Dickinson, Ellsworth, Harper, Harvey, Kingman, Marion, McPherson, Reno, Rice, Saline, Sedgwick and Sumner.
  - Survey from April-July 2010. This continuation is to finish up this project which was not started until the end of June 2009 because of funding not being received earlier.

- **Karnal Bunt -** The collection of 372 samples was written into the workplan but after recalculating the 5 year average harvest for the counties, 344 samples were planned to during the peak harvest time.

- **Cereal Crop Nematode –** This is the third and final year for this survey. There will be 679 samples taken in 53 counties in the eastern half of the state during April and May.

- **Red Imported Fire Ant** – Trapping to occur at high risk live plant dealers in June and July.

- **Emerald Ash Borer** – One hundred traps mostly at campgrounds and event areas throughout the state. Survey is planned from May-September. USDA will be setting 100 traps also.

- **Biocontrol-**
  - **Canada Thistle -** Re-release and monitoring of *Ceutorhynchus litura* used for control of Canada thistle.

  - **Spotted Knapweed –** Re-release and monitoring of the lesser knapweed flower weevil (*Larinus Minutus)* and the knapweed root weevil (*Cyphocleonus achates)* used to control spotted knapweed. Also survey will continue in the central and western upper border counties.

- **Walnut Twig Beetle Survey: Vector of Thousand Cankers Disease of Walnut (farm bill funding)** – This survey will be monitoring for the walnut twig beetle by using canopy traps in April-August and visual survey in July-October. The survey will take place around saw mills that process walnut. This survey is funded through farm bill funding.

- **Infrastructure-**this project will still be a on the state fiscal year basis**, July 1, 2010-June 30, 2011**.

Submitted Workplans for January 1, 2011-December 31, 2011:

- **Exotic Oak Tree Pest Commodity Survey**– A proposed 3 year survey during the months of April through August. The first year will have traps at 50 sites in the counties in the northeast to north central part of the state. The second year will have traps at 50 sites in the counties in the southeast to south central part of the state. The third year will have traps at 30 sites in the counties in the central to western half of the state. Trapping will be for rosy gypsy moth, false codling moth, summer fruit tortrix, variegated golden tortrix, Asian gypsy moth, European gypsy moth and green oak tortrix.

- **Winter Moth and Gypsy Moth Survey** – Survey will be from October to December at 25 live plant dealer sites in 15 counties. Trapping will occur for the Winter Moth and visual for gypsy moth eggs.

- **Karnal Bunt -** The collection of 146 wheat samples are planned to be taken in the western counties of the state in odd years and the central counties of the state in even years. No samples will be taken in the eastern part of the state because of low wheat production. Samples will be taken during the peak harvest time.

- **Emerald Ash Borer** – One hundred traps are planned to be set mostly at campgrounds and event areas throughout the state. Survey is planned from May-September. USDA will be setting 100 traps also.

- **Biocontrol-**
  - **Canada Thistle -** Re-release and monitoring of *Ceutorhynchus litura* used for control of Canada thistle.

  - **Spotted Knapweed** – Re-release and monitoring of the lesser knapweed flower weevil (*Larinus Minutus)* and the knapweed root weevil (*Cyphocleonus achates)* used to control spotted knapweed. Also survey will continue in areas where spotted knapweed was found in Douglas, Franklin, Johnson, Miami, Nemaha and Shawnee counties.

- **Farmbill Proposals-**
  - **Aquatic Federal Noxious Weed Survey -** (survey) – Survey for hydrilla, giant salvinia, exotic burreed, sessile joyweed and other federal and state listed noxious and quarantined plants in 10-15 counties. Proposal was denied.

  - **Walnut Twig Beetle Survey: Vector of Thousand Cankers Disease of Walnut -** (survey) – If there is lure available, traps will be set at 50 sites across the state from April to July. Visual surveys will occur on suspect trees. This proposal was approved for visual only and moved to a line item and not farmbill.

  - **Don't Move Firewood Brochure -** (outreach) – Printing and distribution of not moving firewood brochures and posters at events. Proposal was denied.

  - **Firewood Billboard Campaign -** (outreach) – Outreach campaign by placing billboards on not moving firewood because of the transportation of the walnut twig

beetle and emerald ash borer. This may also provide outreach materials to visitors' centers. Proposal was denied.

- **Infrastructure**-this project will still be a on the state fiscal year basis**, July 1, 2011-June 30, 2012**.

Cooperative agreements were received later than ever for 2011. The emerald ash borer survey, infrastructure project, karnal bunt survey, spotted knapweed biocontrol and Canada thistle biocontrol projects cooperative agreements were signed by the USDA regional director on June 10, 2011.

As of June 30, 2011, no cooperative agreements had been received from USDA for the exotic oak pest commodity survey or the winter moth and gypsy moth survey. Also no funding had been received for any of the signed agreements by June 30, 2011.

MEETINGS

- **SPHD, SPRO, PSS, SSC meeting** – August 13, 2010 at USDA office – 2011 workplan updates – Wendy Beltz, Jeff Vogel, Erin Stiers and Laurinda Ramonda

- **Horticultural Inspection Society (Central Chapter) annual meeting** – October 18-21, 2010 in Innsbrook, Missouri – 40th annual meeting – Laurinda Ramonda and Bob Buhler (KDA)

Agenda:

- October 18:
  - Welcome to MO –Judy Grundler, MDA- Plant Industries Division Director
  - Thousand Cankers Disease of Walnuts-Simeon Wright, MO Dept. of Conservation
  - MO Gravel Bed-Chris Starbuck, Horticulture Professional, University of MO, Columbia
  - Insect & Field Photography for Professional Presentations & Distance Diagnosis & Identification-Tom Riley, Retired Entomology Professor
  - Keeping Inspectors Safe (Ticks/Mosquitoes/Bedbugs)-Richard Houseman, Entomologist, University of MO
  - Meth Production Recognition (for Inspector Safety when Traveling Alone)-Detective Darryl Balleydier
  - Dueling Diagnosticians-Dave Johnson/Julia Thompson, MDA & Simeon Wright, MO Dept. of Conservation
  - Recognition of Wood Boring Insects in Missouri Nurseries…and Beyond-Ted Macrea, Monsanto Entomologist
  - State Reports
  - 40th anniversary gathering-dinner and power point

- October 19:
  - D.E.A.D.: Disease Excitement and Diagnosis (Important diseases of Annuals, Perennials, and Flowering Potted Plants)-Margery Daughtery, Cornell University
  - Chemical Class Chart Review-Andy Seckinger, OHP Products

- Industry members-Panel Discussion-Vic Jost, Jost Greenhouses-Mike Rood, Pea ridge Tree Farm-Pat Belrose, Fahr Greenhouses-Bill Spradley, Trees, Forests & Landscapes
- Roof top garden and Air-spade demonstration
- Innsbrook presentation-LEED certified homes
- State Reports, officer and committee meetings
- Powerpoint slide shows after dinner

➢ October 20:
- Business meeting of the H.I.S. central chapter

- **National CAPS Conference** – November 30-December 3, 2010 in Kansas City, Missouri – Laurinda Ramonda and Jeff Vogel

Agenda:

➢ November 30:
- CAPS 101 and Welcome Reception

➢ December 1:
- Introduction/State Welcome – Collin Wamsley, PPQ Introduction – Rebecca Bech, Meeting Objectives, Goals and Format – John Bowers, Meeting Ground Rules and Other Important Information – Troy Fine
- Best Practices: Communication Success Stories Oregon Invasive Species Council PacNW Firewood Outreach and Education – Helmuth Rogg
- Effective Communication with the Public
- Stakeholder Communications – Jacob Hegeman
- Communication Wrap Up Q&A with Presenters – Troy Fine
- A Program to Capture Outreach Performance
- Farm Bill Section 10201 FY11 Process and Spending Plan – Matt Royer
- Direction of Data Management for Pest Detection and CAPS – John Bowers
- IPHIS Overview – Todd Schroeder, CAPS Implementation of IPHIS – Troy Fine, IPHIS Discussion and Q&A – Troy Fine
- Wrap Up: Review Tomorrow – Troy Fine
- PSS/SSC Networking Session

➢ December 2:
- CPHST Support for CAPS – Lisa Jackson & Melinda Sullivan
- Introduction to CAPS fair – Troy Fine
- CAPS Fair Field-Level Presentations & Demonstrations and NPB session
- Introduction to Breakout Sessions – Brian Kopper
- Pathway Approaches to Planning Surveys – Kristian Rondeau, Are We Targeting the Right Pests? – Brian Kopper & Lisa Jackson, What Is Early Detection? – Avi Eitam, Standardized Accomplishment Reports – Julie Van Meter & Chris Pierce
- Survey Supply Procurement Program Update – John Crowe
- Reports from Breakout Sessions with Q&A – Troy Fine
- Question Box and Wrap Up
- National CAPS committee meeting
- Banquet

➢ December 3:

- State of the CAPS program – John Bowers
- Introduction to Breakout Sessions – Kristian Rondeau
- SPHD-How Can We Fulfill Our Mission in a Down Economy? – Bruce Shambaugh, SPRO-How Can We Fulfill Our Mission in a Down Economy? – Benny Graves, PSS-How Do We Improve Roles, Responsibilities and the CAPS Program? – Greg Buntrock, SSC-How Do We Improve Roles, Responsibilities and the CAPS Program? – Adrian Barta
- Bio-Surveillance: Cerceris Wasp – Nichole Carrier
- Reports from Breakout Sessions and PSS/SSC Networking Session with Q&A – Troy Fine
- Meeting Summary and Closing – John Bowers and Troy Fine

- **Shade Tree Conference -** January 12-14, 2011 in Topeka – Annual Meeting and workshop for the Kansas Arborists Association – Laurinda Ramonda

Agenda:

➢ January 12:
- Advanced Arborists Training Workshop

➢ January 13:
- Welcome – Jennifer Smith, President, KAA
- When Hugging Trees is not Enough – Gary Johnson, University of Minnesota
- Risk Management in the Urban Forest – Gary Johnson
- KAA Business Meeting
- Soil Remediation/Addressing Compaction – Christina Wells
- Root Collar Excavation Data – Christina Wells
- Social with exhibitors
- KAA banquet

➢ January 14:
- Champion Tree Talk – Doug Grimm
- Understanding Oak Hybridization – Guy Sternberg
- Entomology Update – Dr. Raymond Cloyd
- Tough Trees for the Landscape- Guy Sternberg
- Pesticide Regulations Update – Shawn Hackett

- **National CAPS Committee Meeting -** January 25-28, 2011 in Raleigh, NC – Laurinda Ramonda – Annual meeting with National CAPS committee members to work on CAPS guidelines, reporting templates, executive summary from CAPS conference and action items.

- **Central Plant Board Meeting** – March 7-10, 2011 in St. Louis, MO – Laurinda Ramonda

Agenda:

➢ March 7:
- Call to order, roll call, introduction of attendees
- Welcome to Missouri
- Central Plant Board Report
- National Plant Board Report

- PPQ Regional Reports
- NASDA Report
- USFS Forest Health Protection Report
- NAASF Report
- Gypsy Moth Slow the Spread Program – Gene Cross
- Thousand Cankers Disease Panel – Bruce Moltzan, Gray Haun, Phil Marshall
- CPHST – Treatment Standards for EAB and GM – Scott Myers
- Firewood Issue: NFTF Outcomes – Craig Kellogg
- Emerald Ash Borer in Missouri – Christopher Pierce, Anastasia Becker

➢ March 8:
- CPB Member and Staff/PPQ Staff (meetings concurrent)
- State Reports
- Central Chapter H.I.S. Report – Susan Ehlenbeck
- Customs and Border Protection Update – Kevin Harriger
- Volunteer Surveys – Indiana NABB – Cliff Sadoff
- Urban Forest Health Monitoring – Jerry Boughton
- IPHIS/ISIS/NAPIS – Todd Schroeder (by phone)
- Japanese Beetle Harmonization Plan – Gray Haun
- P. ramorum Updates – Stacy Scott
- Post Entry Quarantine 101 – Billy Newton
- National Audit-based Nursery Certification Project – Carl Shulze
- Western Corn Rootworm Variant and Permits – Colin Stewart (by phone)
- Biological Control of Garlic Mustard and Buckthorn: An Update – Laura Van Riper (by phone)
- Potato Cyst Nematode and other Nematode Issues – Billy Newton
- Black Stem Rust Update – Billy Newton

➢ March 9:
- Risk Communication 101 – Suzanne Bond
- Permits 101 – (Soil, BRS, 526, etc) – Katie Hough
- State Reports
- SSC Breakout Meeting (concurrent with rest of meeting)

SSC Breakout Meeting Agenda:

1. Surveys
   a. Farmbill – Update
   b. Survey Planning
      1. CPHST – support needed from them, pests, pathways, etc
      2. Tools – what is used by states, NAPPFAST, risk assessment, etc.
      3. Weeds – are states interested
      4. Economic issues – restraints on surveys
      5. Tem/seasonal help – contract vs. direct hire
      6. Taxonomic support – MDAT, issues, etc.
   c. Implementation
      1. Vehicles
      2. Issues or problems
      3. IPHIS – update, concerns, issues, etc
   d. Reporting
      1. Reporting templates – update

e. Other surveys
1. Cerceris wasp
2. Commodity surveys for 2012 & 2013

2. Infrastructure
a. Tier 2 –utilization
b. Outreach
1. Measuring performance
2. States needs
3. CAPS committees

3. Technology (show & tell)
a. Software – demo it if you can
b. Social media
c. Equipment – Bring it if you got it, show how it's used

- Tour
- Banquet

➢ March 10:
- CPB Business Meeting
- SPHD Business Meeting

- **Thousand Cankers Disease Workshop** – March 31, 2011 in West Lafayette, IN at the Wright Forestry Center - Laurinda Ramonda and Nicole Ricci (KFS)

Agenda:

- Opening and welcome – Manfred Mielke, Walnut Council President
- TCD – The View From Above: A national perspective and 2011 funding and activities – Bruce Moltzan, Pathologist, USFS FHP WO
- Overview and history of TCD/Role of Geosmithia/Genetics of Geosmithia – Ned Tisserat, Pathologist, Colorado State University
- Western Oregon experiences with TCD and expectations for the future – Jay Pscheidt, Pathologist, Oregon State University
- Current status of TCD in Tennessee and plans for 2011 – Gray Haun, TN Dept. of Agriculture
- Risk mapping of eastern forests for TCD: assumptions and predictions – Bill Jones, Pathologist, USFS FHP Southern Region
- Walnut Twig Beetle and Pheromones – Steve Seybold, Entomologist, USFS PSW
- TCD surveys, lessons learned and future plans – Paul Merten, Entomologist, USFS FHP Southern Region
- Experimental walnut plantings and research opportunities – Jim McKenna, Tree Improvement Specialist, USFS NRS HTIRC
- Screening eastern black walnut for resistance to TCD – Mark Coggeshall, geneticist, University of Missouri
- Field protocols for surveys: sampling and identification – Jenny Juzwik, pathologist, USFS NRS
- Examination of fungus cultures and insect specimens – Seybold, Tisserat, Juzwik
- In-tree crown sampling, branch examination Martell Forest
- Discussions, mixer, BBQ, Wright Center

- **International Symposium on Agroterrorism 2011** – April 26-28, 2011 in Kansas City, Missouri. This meeting was held to bring together public and private partners interested in identifying and discussing relevant topics related to the protection of the global food supply. My registration and hotel was paid through a Homeland Security grant.

Agenda:

- April 26:
  - Opening ceremonies and welcome
  - FDA Food Safety Modernization Act
  - Japan – Foot and Mouth Disease Case Study
  - Breakout Session #1 (Held concurrently)
    - Laboratory Capabilities for Responses
    - Food and Agriculture Sector Critical Infrastructure Prioritization and Related Activities
    - Asia-Pacific Economic Cooperation Food Defense Outreach
    - Defining and Implementing Risk Intelligence and Resilience
    - The New Mexico ALIRT and Syndromic Surveillance
  - Breakout Session #2 (Held concurrently)
    - FDA Food Safety Modernization Act – Question & Answer Session
    - The Agroterrorism Threat
    - Defining Food Fraud & the Chemistry of the Crime
    - Public Health Surveillance Systems
    - Tools Developed by State and Local Governments using Funding from FDA Food Defense Grants
  - Breakout Session #3 (Held concurrently)
    - Remote Video Auditing (RVA): How Large Meat Companies Preemptively Protect Against Food Defense and Food Safety Beaches
    - Establishing Private Sector/Government Partnerships
    - Life Cycle of the Plant Health Emergency
    - Food and Agriculture Emergency Planning
    - Federal Food Defense Guidance and Training Materials
  - Reception

- April 27:
  - Key Note Presentation: Fulfilling the FSIS Food Defense Mission – Alfred Almanza, Administrator, Food Safety and Inspection Service
  - Surviving and Thriving in an Age of Turbulence
  - Economically Motivated Adulterations
  - Media Influence
  - Key Note Presentation
  - Synthetic Biology
  - Australian Vegetable Sabotage Case Study
  - Deepwater Horizon: Coordinating Responses to an International Event
  - BBQ Banquet

- April 28:
  - Key Note Presentation – U.S. Senator Pat Roberts
  - National Bio and Agro-defense Facility
  - Multi-Agency Response to a Hoax FMD Release in New Zealand

- Tri-Lateral Case Study: New York/New Scotland Yard/Pretoria, South Africa
- Food Detectives (Team Diarrhea)
- Food and Agriculture Organizations of the United Nations
- Closing Ceremony

- **State CAPS Meeting** – May 16, 2011 in Manhattan at Kansas State University.

Minutes from CAPS Committee Meeting on May 16, 2011

The state CAPS Committee met on May 16, 2011 at 1:00 pm at the Dean's Conference room, 137 Waters Hall at Kansas State University. In attendance were: Erin Stiers-USDA-APHIS, Vicki Wohlers-USDA-APHIS, Craig Webb-USDA-APHIS, Doug Jardine-KSU Plant Pathology, Megan Kennelly – KSU Plant Pathology, Sharon Dobesh-GPDN, Tim Todd-KSU Nematologist, Jeff Vogel-KDA, Jon Appel-KDA, Darin Banks-KDA, Jim Reimann-KDA, Nicole Ricci-KFS and Laurinda Ramonda-CAPS Coordinator.

Introductions were made.

Project Results for calendar year January 1-December 31, 2010:

- Karnal Bunt - 305 samples were taken in 78 counties. No karnal bunt detected.

- Red Imported Fire Ants – 61 live plant dealers in 25 counties were checked. No red imported fire ants detected.

- Small Grain & Soybean Commodity – 100 wheat fields checked in the central part of the state. 219 traps with 1,050 specimens were sent to Washington State for identification. No silver Y moth, Egyptian cotton leafworm, old world bollworm, maritime gardensnail were detected.

- Canada Thistle Biological Control – 1,859 Canada thistle stem mining weevils were released at Keith Sebelius Lake in Norton county.

- Spotted Knapweed Biological Control – 900 knapweed flower weevils and 1300 knapweed root weevils were released Nemaha county. New finds of spotted knapweed were found in Douglas, Johnson and Shawnee county.

- Emerald Ash Borer- 100 traps KDA and 100 traps USDA were set. No EAB was found.

- Walnut Twig Beetle and Thousand Cankers Disease of Walnut – (farm bill funding) – Canopy traps were set at 14 sawmills and visual inspections were done at the same time. No walnut twig beetles were found.

- Cereal Crop Nematode – 2008-2010 survey results are below with discussion.
  - There will be 40-50 samples taken this year for yield assessments.
  - A publication is planned for possibly this fall. This was the first survey of nematodes in the great plains region, no intensive survey had been done before.

- 2,100 samples were taken. No exotics were found but in 2 locations root knot juveniles were found in the soil samples. The indication from these results and greenhouse bioassay, is that the root knot species is one that does not infect wheat but likely some weed species.
- Lesion nematodes are the #2 pest in wheat production in Kansas. There is a 2% wheat loss across Kansas.
- Soybean Cyst Nematode was a concern in Cherokee County, seems to be higher prevalence, also in areas where there are soybean/wheat rotations. These results mirror a similar SCN survey being conducted in the state.
- Seed companies are interested in lesion nematodes because of corn and wheat and potential losses.
- No pesticide registered for wheat, looking at resistance instead.

Caps Nematode Survey

2008 - 2010

By Tim Todd

*Nematode Prevalence in KS Wheat Samples: CAPS Program, 2008-2010**

Nematode	Prevalence (%)	Avg. density (max) #/100 cm^3 soil
Merlinius brevidens *Quinisulcius acutus*	81	81 (1,880)
Pratylenchus neglectus *P. thornei*	61	48 (1,080)
Paratylenchus projectus	28	180 (6,520)
Heterodera latipons *H. avenae*	0	-
*H. glycines***	2	-
Meloidogyne artiellia	0	-

*2,105 samples; **677 samples.

*Nematode Prevalence in KS Wheat Samples: CAPS Program, 2008-2010**

Nematode	Prevalence (%)	Avg. density (max) #/100 cm^3 soil
Helicotylenchus	8	53 (1,220)
Xiphinema	4	11 (220)
Hemicycliophora	<1	201 (760)
Paratrichodorus	<1	11 (40)
Criconemella	<1	17 (40)

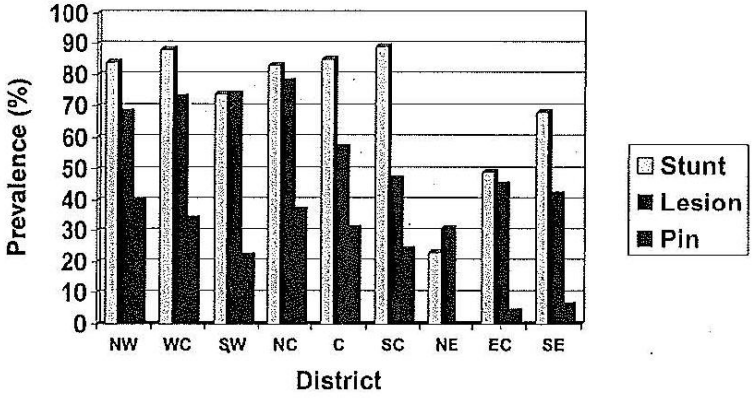
* 2,105 samples.

*Pratylenchus Prevalence in KS Wheat Root Samples: CAPS Program, 2008-2010**

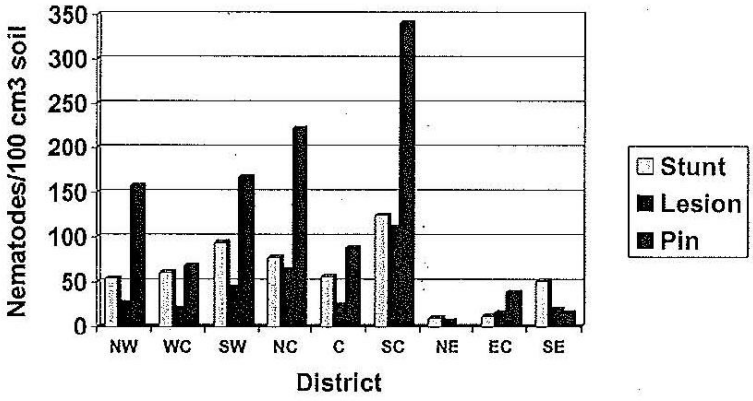
Nematode	Prevalence (%)	Avg. density (max) #/g root
Pratylenchus neglectus	75	1,965 (90,309)
P. thornei	1	1,015 (4,837)
P. alleni	<1	713 (2,852)
Total	77	1,942 (90,309)

* 2,105 samples.

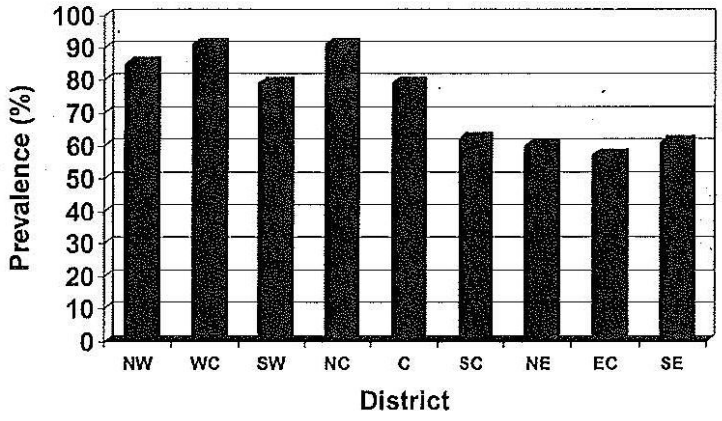
Nematode Prevalence by District



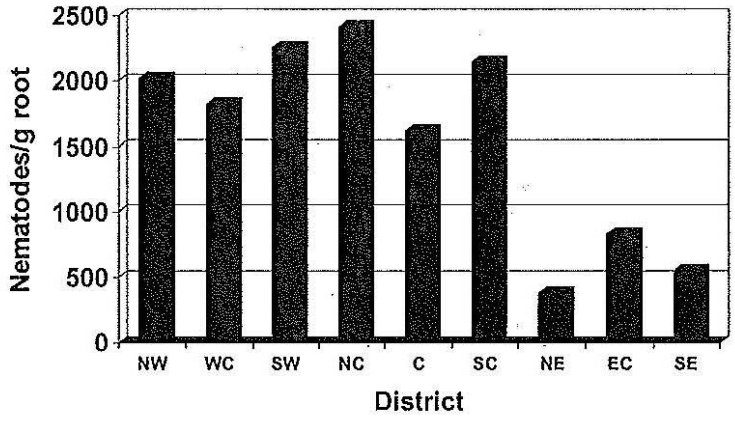
Nematode Population Density by District



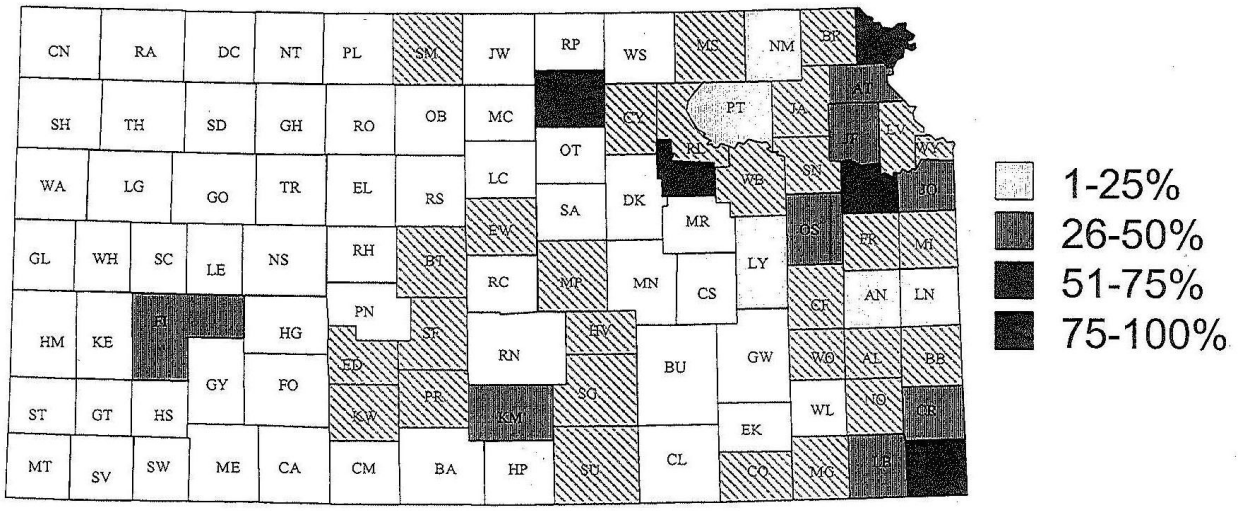
Lesion Nematode Prevalence by District



Lesion Nematode Population Density by District



SCN Survey Prevalence, 2010



Surveys Calendar year January 1-December 31, 2011:

- Exotic Oak Pest Commodity Survey (pest detection) – 3 year plan – 50 traps in 2011 in Northeast part of the state, 50 traps in 2012 in Southeast and 30 traps in 2013 in the western part of the state. Traps will be set for rosy gypsy moth, false codling moth, summer fruit tortrix, green oak tortix, variegated golden tortrix, Asian and European gypsy moth. Planned from April with traps taken down in September.

- Winter Moth & Gypsy Moth Egg Survey (pest detection) – Trapping at 25 high risk live plant dealer sites in 15 counties in October – December.

- Emerald Ash Borer- 100 traps KDA and 100 traps USDA. Most traps have been set.

- Karnal Bunt – Every 2 years wheat samples will be taken from 2/3 of the state. 146 samples planned for the western counties (odd years) and 143 samples are planned for the central counties (even years).

- Spotted Knapweed Biological Control – Supplemental releases in Nemaha county and monitoring of previous released insects.

- Canada Thistle Biological Control – Supplemental releases at Keith Sebelius Lake and monitoring of previous released insects.

- Walnut Twig Beetle: Vector of Thousand Cankers Disease of Walnut (Farm bill proposal) – A Thousand Cankers Disease Survey Guideline for 2011 has been released from USDA. Kansas has been offered $16,621 for this survey. The proposal was written in hopes that a trap and lure would be available this summer.

- Aquatic Invasives (federal noxious weeds) – Farm bill proposal – this was denied for funding.

- Don't Move Firewood Brochure – Farm bill proposal – this was denied for funding.

- Firewood Billboard campaign – Farm bill proposal – this was denied for funding.

State Specialist Updates:

Jon Appel – state plant pathologist:
- Soil and root samples will continue to be collected for nematodes.
- Samples will be taken for a wheat virus survey, one concern is wheat streak mosaic virus.
- 10-15 pine wilt samples per week have been coming in from western Kansas. There is a lot of public interest in the western counties.

Darin Banks-state weed specialist:
- The biocontrol insect release for Canada thistle in Norton county will be in August.
- The biocontrol insect release for spotted knapweed will occur again in Nemaha county.
- Recheck populations of spotted knapweed in Douglas and Johnson counties. There was only 1 plant found in Shawnee county but the spot will continue to be monitored. In 2010 head weevil parasitism was found. Will go back in June to look again.
- Hydrilla in Black Bob park – In June 2010, the pond was treated with Sonar 1. It was treated 2-3 times because of rainwater runoff. In August very little found. When it id found this year, samples will be sent to UC Davis for typing.

Jeff Vogel – program manager:
- Entomologist has been hired. Greg Chrislip will start on June 13. He is coming from West Virginia and has a forest entomology background.

USDA-APHIS-PPQ:
Erin Stiers:
- All EAB traps are hung.
- Gypsy Moth – 500 traps will be put out and they are going to be put out farther west in the state than usual. None were found last year and the delimits were negative.
- There is a new data collection system for surveys for USDA and it is known as IPHIS (integrated plant health information system).
- Check out NABB (Neighbors Against Bad Bugs) - http://extension.entm.purdue.edu/eab/index.php?page=management/nabb

Vicki Wohlers:
- Farm bill agreements will be a 12 month agreements from the time money received.
- Notice of CAPS funding may be known later this week.

State Specialists Updates:

Nichole Ricci:
- Still waiting on tri-state (Kansas, Colorado, Nebraska) money for TCD.
- Funding for and invasive species grant may soon be available for bush honeysuckle control.

Megan Kennelly:
- There has been a lot of outreach done for pine wilt and TCD.
- County agents have been involved in pine health issues and this may be used for other tree issues as well.
- Want to look for oak wilt to oak pest commodity survey when surveyor is in the field this year.
- Holly has reference samples for the walnut twig beetle.
- Great Plains Tree Pest Council is July 12-13 in Cheyenne, Wyoming.

Sharon Dobesh:
- Since the continuing resolution GPDN has been cut by 40%. Subcontracts to the other regions have been cut by 20%. States can make it through this year but not for sure about later. Several of the regions especially the west and great plains region are advocating for restored funding.
- GPDN is without a regional diagnostician.
- In the process of finding out what the impact is to each state with the reduced funding.
- As of July 1, Sharon will be the bee specialist in Entomology. Keep checking the swarm catcher list for updated information.

Doug Jardine:
- IPM PIPE soybean rust website platform is now being funded by the United Soybean Board. It is paying for the IT part and sentinel plots in some states but not in Kansas. The 1st map came out May 16. Not expecting it to be a big soybean rust year.
- Pilot phase for southern corn rust is also on the site.
- High levels of soybean cyst nematode in Finney, Kingman and Chautauqua counties. Could be because of sandy soil or crop rotations.
- There is a K-State Crop Disease facebook page. Has information on crop disease information from other states.
- The Crop Disease newsletter is discontinued. This information is now included in other newsletters such as horticulture newsletter.
- Leaf rust, stripe rust and head scab should be in low levels this year.
- Viruses in wheat seem to be higher this year.

Possible 2012 survey ideas:
- Khapra beetle
- Brown Marmorated Stink Bug (BMSB)

- 2012 Corn Commodity Manual is available.

Thanks to all who attended and the information shared.

OUTREACH

- **Shawnee County Fair -** July 22-25, 2010 in Topeka - Informational booth – Jeff Vogel and Laurinda Ramonda.

- **Pest Detection Workshops –** Laurinda Ramonda and Jeff Vogel - KDA, Tim McDonnell - Kansas Forest Service, Ray Cloyd, Megan Kennelly and Judy O'Mara - Kansas State University – Funding was through grants from homeland security and forest service
  - November 12, 2010 **–** Emporia-27 people attended and 13 people signed up to be put on the state pest detector list
  - November19, 2010 **–** Hays-24 people attended and 9 people signed up to be put on the state pest detector list
  - November 30, 2010 **-** Garden City-13 people attended and 10 people signed up to be put on the state pest detector list

Pest Detector workshops are used to train people in identifying Emerald Ash Borer and Walnut Twig Beetle and Thousand Cankers Disease of Walnut in Kansas. Persons wanting to be on the list of State Pest Detectors will need to attend the one day Pest Detector workshop and commit to being available and involved with the program after completing the training.

Involvement includes being accessible, willing to do site visits if necessary, talking with the public, report pest related activities, protect confidential information and notifying organizers of current contact information.

Workshops were presented by the Kansas Forest Service, the Kansas Department of Agriculture, and Kansas State University.

Lawrence workshop

Hays workshop

Agenda:

9:00 am – Check-in
9:30 -10:30 – Emerald Ash Borer biology, identification, damage, tree identification, management
10:30 – 10:45 – Break
10:45 – 11:45 – Thousand Cankers Disease: Disease Complex identification, biology, damage, tree identification (Pine wilt was also presented in Hays and Garden City)
12:00 – 1:00 – Lunch (provided)
1:00 – 2:00 – Regulatory, sample submission, public interaction, disposal

2:00 – 2:15 – Break
2:30 – 3:30 – Hands on demonstrations (ash and walnut)
3:30 – Adjourn

- **Shade Tree Conference -** January 12-14, 2011 in Topeka for the Kansas Arborists Association – Informational booth

- **Kansas Garden Show -** February 18-20, 2011 in Topeka – Laurinda Ramonda, Jeff Vogel and Darin Banks (KDA) - Informational Booth

Kansas Garden Show

- **Wichita Garden Show -** March 2-6, 2011 in Wichita – Cherie Copeland (KDA), Tom Sanders (KDA), Terry Clarkson (KDA), Bob Buhler (KDA), Jon Appel (KDA) and Laurinda Ramonda – Informational Booth

- **KKSU Radio Interview** – May 18, 2011 – Laurinda Ramonda – Phone interview for K-State radio on emerald ash borer and emerald ash borer week.

- **News Article** – May 23, 2011 – Chelsea Good (KDA Communications Director), Laurinda Ramonda and Jeff Vogel – News article sent out regarding the emerald ash borer traps.

TRAINING

- **Tree Disease and Pest Workshop** – July 14-15, 2010 Chadron State College in Chadron, NE – Laurinda Ramonda – Workshop presented by Great Plains Tree Pest Council and Great Plains Diagnostic Network.

Agenda:

- July 14, 2010:
  - Welcome, John Ball/Jim Stack
  - Overview of Tree Pests and Diseases
    - Response and Management of Exotic Pests with Particular Focus on Emerald Ash Borer - Mark Abrahamson

- National Firewood Update - Les Koch
- Risk of Firewood in the West - William Jacobi

- 1000 Cankers Disease - Ned Tisserat
- State Reports
- Woody Plant Pest Activity and Research
- Emerald Ash Borer "Look-A-Likes" Identification – John Ball, Mark Harrell, Mark Abrahamson
- Trail Dinner at Fort Robinson

➢ <u>July 15, 2010</u>
- Tour of Key Tree Pest Problems
- Tree Disease & Insect Identification (breakout sessions)

- **Advance Planning Concepts: Developing Incident Action Plans** – October 7-8, 2010 Topeka, KS – Laurinda Ramonda, Sandy Johnson (KDA), Steve Stankiewicz (KDA) – Course in usage and understanding of ICS forms, the Advanced Planning Process, and several other critical advanced planning products and techniques.

- **Table top exercise -** December 14, 2010 – Jeff Vogel, Laurinda Ramonda, Jon Appel (KDA) and Bob Buhler (KDA) – Exercise to prepare for the functional emergency exercise planned for March 2, 2011.

- **Strengthening Community Agrosecurity –** January 19-20, 2011 – Laurinda Ramonda, Bob Buhler (KDA) and Jon Appel (KDA) - This was a workshop to provide tools for community agrosecurity planning teams.

- **Functional Emergency Exercise –** March 2, 2011 - A functional emergency exercise in conjunction with Oklahoma's full scale exercise. Colorado was also involved in the functional exercise.

- **IPHIS Training** – April 11-12, 2011 in Topeka – Erin Stiers, PSS, USDA-APHIS-PPQ, presented training for the new data collection program for USDA. This will be the required depository in 2012 for survey data for the states. KDA will enter some line item survey data in the system this year and all data from USDA surveys will be entered in IPHIS this year. IPHIS will replace NAPIS in 2012. Attending was: Laurinda Ramonda, Craig Webb (USDA), Ryan Stueves (USDA), Barry Coles (USDA), Ryan Rastok-Seasonal help for USDA, Vicki Wohlers (USDA) and Jeff Marker (USDA).

- **Plant Protection After Action Review** – June 3, 2011 – Jeff Vogel, Jon Appel, Bob Buhler, Laurinda Ramonda, Steve Stankiewicz and Sandy Johnson. Meeting to talk about functional exercise that occurred March 2, 2011.

OTHER

- **Central Plant Board National CAPS Committee State Survey Coordinator Representative** – Laurinda Ramonda - Two-year term, April 1, 2010-December 31, 2011

- Represents the CPB states (North Dakota, Minnesota, Illinois, South Dakota, Iowa, Indiana, Nebraska, Missouri, Michigan, Kansas, Wisconsin and Ohio) on issues that could affect decisions and policies of the Committee
- Takes a leadership role on various National CAPS Committee business
- Participates in conference calls with the Committee on decisions and policy issues, particularly in reviewing the final annual Guidelines
- Communicates with constituency to bring ideas and issues forward, as well as informs them of CAPS activities
- Attends the annual National CAPS Committee meeting and off year National CAPS Conference

2011 KANSAS PEST LIST

Rank	Common Name	Scientific Name	Pest Type
1	Red Imported Fire Ant	*Solenopsis invicta*	Insect
2	European Alfalfa Beetle	*Subcoccinella vigintiquaturopunctata*	Insect
3	Gypsy Moth	*Lymantria dispar*	Insect
4/5	Walnut Twig Beetle	*Pityophthorus juglandis*	Insect
4/5	Thousand Cankers Disease	*Geosmithia spp.*	Fungus
6	Witch Weed	*Striga spp.*	Noxious Weed
7	Asian Longhorned Beetle	*Anoplophora glabripennis*	Insect
8	Winter Moth	*Operophtera brumata*	Insect
9	Hydrilla	*Hydrilla verticillata*	Noxious Weed
10	Oak Splendour Beetle	*Agrilus biguttatus*	Insect
11	Black Swallow Wort	*Vincetoxicum nigrum*	Noxious Weed
12	False Codling Moth	*Thaumaatotibia leucotreta*	Insect
13	Khapra Beetle	*Trogoderma granarium*	Insect
14	Giant Salvinia	*Salvinia spp.*	Noxious Weed
15	Africanized Honey Bee	*Apis mellifera*	Insect
16	Potato Wart	*Synchytrium endobioticum*	Disease
17/18	Karnal Bunt	*Tilletia indica*	Disease
17/18	Japanese Beetle	*Popillia Japonica Newman*	Beetle
19	Mediterranean Cereal Cyst Nematode	*Heterodera latipons*	Nematode
20	Potato Cyst Nematode	*Globodera pallida*	Nematode
21	Emerald Ash Borer	*Agrilus planipennis*	Insect
22	Cereal Cyst Nematode	*Heterodera avenae*	Nematode
23	British Root Knot Nematode	*Meloidogyne artiellia*	Nematode
24	Formosan Subterranean Termite	*Coptotermes formosanus*	Insect
25	Cactus Moth	*Cactoblastis cactorum*	Insect
26	Summer Fruit Tortrix	*Adoxophyes orana*	Insect
27	Brown Marmorated Stinkbug	*Halyomorpha halys*	Insect
28	Whitefringed Beetle	*Naupactus spp.*	Insect
29/30/31	Asiatic Garden Beetle	*Maladera castanea*	Insect
29/30/31	European Chafer	*Rhizotrogus majalis*	Insect
29/30/31	Oriental Beetle	*Exomala orientalis*	Insect

2011 KANSAS COMMODITY LIST (TOP 10)

Rank	Commodity	Sales	Acres
1	Wheat	$1,872,000,000	8,400,000
2	Forage, Hay	$514,900,000	5,700,000
3	Corn	$3,051,563,000	4,850,000
4	Soybeans	$1,657,500,000	4,300,000
5	Sorghum	$952,812,000	2,350,000
6	Sunflower	$40,788,000	139,000
7	Forage, Alfalfa	$279,110,000	80,000
8	Oats	$2,750,000	65,000
9	Cotton	$34,675,000	51,000
10	Barley	$2,750,000	10,000

Sources: 2010 National Agriculture Statistics Service

Kansas Nursery Pest Newsletter

Plant Protection and Weed Control
Kansas Department of Agriculture
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Topeka, Kansas 66619
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Fall 2010

Quarantined Ornamental Plant Cultivars in Kansas

Darin L. Banks, State Weed Specialist

Every gardener, professional or amateur, loves to get and grow different cultivated varieties of flowers, shrubs and grasses. Exciting, new cultivars are what inspire many plant breeders, but some ornamental cultivars are illegal in Kansas.

The Plant Pest and Commodities Act of Kansas give the secretary of agriculture authority to quarantine plant pests. A quarantined plant must not be sold, bartered, or moved within the state. Kansas currently has four active, permanent quarantines that impact cultivars that could come into Kansas. These include tamarisk (salt cedar), purple loosestrife, Grecian foxglove, and all federal noxious weeds such as Japanese bloodgrass (*Imperata cylindrica*), giant salvinia (*Salvinia auriculata, S. biloba, S. herzogii*), and nonnative climbing ferns (*Lygodium flexuosum, L. microphyllum*).

Following is a list of cultivars impacted by state-level plant pest quarantines. If you observe any of these cultivars for sale or trade, please contact us at (785) 862-2180. More information on quarantined plants is on our website at www.ksda.gov/plant_protection/content/360.

Tamarisk or Salt Cedar Cultivars (includes all *Tamarix* species)

Cheyenne Red	Pink Cascade	Plumosa
Rubra	Summer Glow	

Purple Loosestrife Cultivars (includes *Lythrum salicaria, Lythrum virgatum,* and all hybrids derived from these species)

Atropurpureum	Augenweide	Blush
Brightness	Cinereum	Columbia Pink
Dropmore Purple	Feuerkerze	Firecandle
Florarose	Happy	Hirsutum
Lady Sackville	Little Robert	Morden Gleam
Morden Pink	Morden Rose	Prichards Variety
Red Gem	Robert	Robin
Rosa Spitzentraum		Rose Queen
Rose		

Rosencaule	Roseum	Rosy Gem
Stichflamme	Swirl	The Beacon
The Bride	The Rocket	Zigeunerblut

Grecian Foxglove Cultivars (*Digitalis lanata*)

Cafe Crème	Genova	Spice Island

Japanese Bloodgrass Cultivars (*Imperata cylindrica*)

Red Baron	Rubra

Thousand Cankers Disease of Walnut Quarantine

Jeff Vogel, Program Manager

The Kansas Department of Agriculture enacted an exterior quarantine effective July 20, 2010, regarding thousand cankers disease of walnut.

The quarantine requires individuals or businesses handling regulated articles in Kansas to register with the Kansas Department of Agriculture. Regulated articles include logs, lumber, firewood, bark, mulch, burls, stumps, **live plants**, packing material and all other articles of walnut (genera Juglans). Exempt from the quarantine are nuts, nut meat, hulls, and processed lumber that is bark free and from states where thousand cankers disease of walnut is not found.

Individuals or businesses importing regulated articles must enter into a compliance agreement. Imported articles from states known to be infested with thousand cankers disease, or from states that do not conduct an annual survey for the disease, must be inspected and certified free of the disease and the

walnut twig beetle before they will be allowed into Kansas. Articles from states known to be infested must be free of bark.

Regulated articles from states that complete annual surveys and are found free of the disease and twig beetle do not need to be inspected before entry into Kansas.

The quarantine and the walnut registry application can be found at www.ksda.gov/plant_protection.

Pine Wilt Management and Control Considerations

Jon Appel, Plant Pathologist

Pine wilt continues infecting pines across central and eastern Kansas, and some cities are minimizing the impact this has on their communities by using management programs.

Following are considerations for the landowner, nurserymen, arborist and municipal forester addressing pine wilt and eradicating or minimizing the impact it has on windbreaks, landscapes and production areas. They are based on published scientific information and observations and professional recommendations from plant specialists with the Kansas Department of Agriculture, Kansas Forest Service and Kansas State University Extension Service.

Susceptible hosts in Kansas by order of susceptibility:

1. Scotch and Mugo
2. Austrian
3. White pine (a few reports in heavily infected areas)
4. Ponderosa (not considered a disease host)

Important aspects of the disease cycle for management:

- The disease moves primarily from tree to tree and location to location by the pine sawyer. The pine sawyer can travel considerable distance during a growing season, but most stay close to where they emerged.
- The pine sawyer transmits the pine wood nematode that causes the disease during maturation feeding (young adulthood to sexual maturity) on pine needles and shoots. Some transmission is also believed to occur during oviposition (laying eggs in the wood of the tree).
- In much of Kansas, pine sawyers emerge in a staggered fashion from late May to early November. Three years of adult pine sawyer trapping and observations of larvae in wood support this hypothesis of a one-generation, staggered-emergence insect.
- Sawyers seek out dead or dying trees to lay their eggs in. This wood is where the insect for the following year overwinters and emerges.
- One tree may contain hundreds of sawyers in the winter.
- There is scientific evidence that pine wood nematodes can infect wounded root systems without the sawyer and through root grafts to nearby trees.

Pine sawyer

- Symptoms include whole trees or bushes dying or dead, to single branch flagging of dead branches seen on Scotch pine.
- Human movement of firewood and nursery trees (latent infection) from infected areas to noninfected areas can move the nematode and sawyer long distances. Slow the spread.

1. Above left. The tree to the left is dying from pine wilt disease and demonstrates the whole tree symptom.
2. Above. Scotch pine branches are flagged (winter).
3. Left. The tree is dead the following spring

Management Recommendations:

- Pine wilt can be diagnosed by testing a dead tree's branches or trunk. In most cases, try to collect wood samples near the trunk and dead

To take a sample pine branch, cut a stub about 5 inches from the trunk. Cut two to three disks (about ½-inch thick) from the branch. Combine the disks with disks from two other branches for a good sample.

branches that have needles attached to them from the current season.

- It is essential to educate the public, nurseryman and arborists about this pest, both for early detection and proper disposal.
- It is best to monitoring for the disease from September through the following March. Symptoms may develop differently based on environmental conditions. During hot, dry conditions during summer or early fall, trees will die quickly. In cooler, wetter conditions, trees will slowly succumb to the disease over several months.
- Tree removal is the best way to control or eradicate pine wilt. It is best to remove trees diagnosed with pine wilt during **winter months**. S*awyers seek out dead or dying trees to lay their eggs and, if left standing, a dead tree may attract several females to lay their eggs in the wood during summer and fall months. Removing and destroying the tree in the winter is a good management tool before a new generation of sawyers in the spring. If trees are removed in summer or early fall, only the nematode is removed in the wood. Active sawyers in the area still carry the disease agent and may disperse greater distances if they are disturbed and a brood tree is not nearby. Another advantage of destroying trees in the winter is that it poses less risk of uncontrolled fire for landfills and private burn sites. The wood should not be used for firewood unless it is used immediately and completely.*
- Although insecticides will kill the beetle, they often are not practical because the length of time the adult beetle is active and the size of the tree. However, in areas where the disease is known to occur, highly prized trees can be protected by trunk injections.
- If infected trees are left standing, they a disease and inset source for more than a year.
- Stump grinding or root pruning may provide some advantage in cases where pines are near to each other and root transmission is a possibility. Sawyers are not controlled in this fashion.
- Chipping wood and burying wood are two alternatives to burning wood. It is important that branches that are 1 inch in diameter or greater be chipped.
- Chips or wood mulch from an infected pine should not be placed on or near pine trees. Although the chance of infection is low, research suggests that infection is still possible. Use the pine mulch on other tree species.
- Monitor new plantings of larger landscaped trees for pine wilt. Trees dug in infested production fields and moved may show no outward symptom of disease for weeks or months and then will die. Landowners or landscapers may attribute it to transplant shock when pine wilt may be responsible. In noninfested areas, landscaped trees should come from local nursery production and not retail centers handling pines from other areas or states.
- Landfill operators are important partners in community programs. The operator needs to be informed and brought in as a team member on handling infested plant material.
- In windbreaks and close plantings, trees next to pine wilt trees should be considered for removal because of the possibility of spread in root grafts.
- Landowners need to monitor a site for at least one year after a pine is diagnosed with the disease.

Trapping Programs

The Plant Protection and Weed Control program surveyed for red imported fire ant at 61 live plant dealers in June and August. This survey was to determine the status of the pest in areas identified as high-risk pathways to Kansas. This project was to help minimize the impact this pest could have in Kansas by detecting it early and providing an opportunity for its eradication, if found. Kansas live plant dealers receive plant materials from 269 sources identified within or near the federal fire ant quarantine areas.

There have been six incidents of red imported fire ant being introduced into Kansas. In every instance, they had spread from the initial introduction site. In one case, they even overwintered here. Counties associated with past introductions include Johnson, Douglas, Sedgwick, Harvey and Crawford. The most recent find in summer 2009 was in Montgomery County from plant material a nursery received from Florida.

We appreciate the live plant dealers who let us bait for the red imported fire ant on their property. This type of work is important to protect Kansas. Early detection will improve our chances to eradicate or contain it if it is found.

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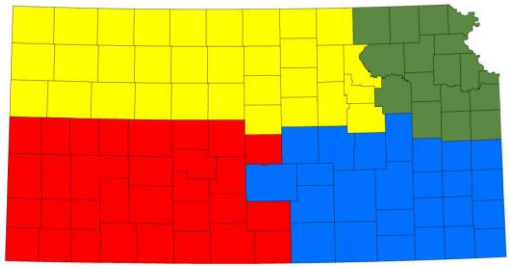

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Nursery Pest Newsletter

Plant Protection and Weed Control
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Spring 2011

Bacterial Leaf Scorch (BLS) Of Landscape Plants and Grape

Jon Appel, Plant Pathologist

In 2010, Oklahoma reported five counties with new records of Pierce's disease of grapes in vineyards. This disease is part of a complex of diseases that affect a wide range of hosts including such plants as oaks, sycamore, maple, mulberry, oleander and grapes. The disease is caused by a xylem-inhabiting bacterium known as *Xyllella fastidiosa* and transmitted from plant to plant by a group of insects known as leafhoppers. The bacteria plugs up the water transporting cells of the plants and under water stress of summer and late fall, plants develop scorch symptoms. Plant vigor declines and eventual death of the tree or plant may occur. For more information go to: www.usna.usda.gov/Research/BacterialLeafScorch.html

Pierce's disease of white grape (PD/GWSS)

Kansas receives a lot of nursery stock from out of state including Oklahoma and other southern states where the disease is more widespread and is becoming more prevalent. Nursery stock is a considerable threat in spreading this disease within the state. Once brought into a nursery situation, the plant harboring the fastidious bacteria may serve as a source of infection if leafhoppers are present. Pierce's disease is especially a concern to grape growers either hobbyist or commercial.

What makes a plant a suspect? We are all aware of scorch symptoms in Kansas from high summer temperatures and winds. Those plants typically have symptoms that are uniform on plants concerning the position of the scorched leaves on the tree, uniform margin scorching and color. With bacterial scorching, scorched margins of leaves vary in appearance, leaves will sometimes have a yellow margin from green leaf tissue to the brown dead tissue and the position of scorched leaves in the canopy are non uniform. A high number of leafhoppers can also be a clue. Confirming the disease requires laboratory testing to distinguish BLS from environmental, other disease or herbicide injury. Note: The BLS symptoms vary from leaf to leaf as opposed to the horse chestnut image where scorch (brown tissue) is uniform on margins.

Horse chestnut with heat scorch

Mulberry with BLS, Hays

Damping-Off Of Greenhouse Plants:

With greenhouse production upon us, now is a good time to say something about our number one blight to green house production – damping off (DO). It is important to understand that DO fungi generally attack the seed, seedling or older plant when

conditions are not optimal for growth. The DO fungi attack roots and lower stem tissue as a rot. Placing plants on cold floors, overwatering, poor drainage and lack of sanitation are contributing factors. Plants will exhibit poor germination, mineral deficiency, wilting, stunting and death from the disease. For control, a number of fungicides are on the market that are very good and should be considered in a prevention program – yes prevention! Growers can recognize plants or flats rotting and dispose of them before the disease spreads. Splashing or free water and fungal gnats can move the disease to nearby plants. The complex is a regulated pest problem but more importantly can absolutely ruin a crop if unchecked. Often our inspectors will see DO severely affected flats or plants that growers do not throw out, sitting in the center of infection in a greenhouse.

Close up of a geranium with mineral deficiency and discolored roots (arrow). The roots should be white with lots of root hairs and secondary branching.

Growers should run plants dry when possible, start plants on raised benches and control fungal gnats with insecticides or other means. The larvae in the soil feed on roots opening up wounds for damping off fungi of *Pythium*, *Phytopthora*, and *Botrytis*-gray mold.

Zonal geraniums with damping off – symptoms: plants are missing or rotted, mineral deficiency is seen with yellowing/ purpling of leaves and stunting. Plants on the ground are at risk to DO because soil temperatures are lower and air circulation is poor.

PINE WILT:

It is important to get rid of the dead pine trees in your production fields before Spring. Pine wilt is likely the cause of those dead pine trees and harbors the pine sawyer. The insect transmits the disease causing nematode in summer and fall. The dead pine tree serves as a "nest" for the larvae in the winter. Destroy the wood by chipping, burying, or burning and reduce the disease pressure for next year, increasing production. You may call your KDA area inspector for sampling instructions and we can provide free testing for the nematode, if desired.

Japanese Fleece-flower, an Invasive Plant from the Garden

Darin L. Banks, Weed Specialist

Japanese fleece-flower (*Fallopia japonica*) is a non-native, semi-woody perennial native to eastern Asia. The plant is widely distributed throughout the United States (being found in 43 states). Japanese fleece-flower was first introduced into the United States during the late 1800s as a garden ornamental. It can survive in USDA hardiness zones 4 to 9, especially in areas with 20 inches or more of rainfall and along riparian areas having less than 20 inches of rainfall.

The plant is physically impressive, forming large clumps of reddish-brown stems that grow 3 to 10 feet in height. The large (4 to 6 inches long and 3 to 4 inches wide) leaves alternate along the stem at swollen nodes giving the plant a bamboo-like appearance. This look provides the basis for several of the plants other common names including Japanese bamboo, American bamboo, Mexican bamboo, and Japanese knotweed. Japanese fleece-flower produces very small, white flowers in plume-like clusters at the base of each leaf during August and September. The plant reproduces both vegetatively (roots) and seeds, making it extremely difficult to control.

Growth habit and leaf shape

Flower clusters

Japanese fleece-flower grows very rapidly and aggressively by an extensive root system of underground stems called rhizomes to form dense thickets. The plants root system is especially destructive along riparian areas where it establishes monocultures that die back in the winter leaving banks exposed and increasing the risk of flooding and river bank erosion. The invasive rhizomes and shoots can also damage foundations, walls, drainage works, flood structures, and driveways having been shown to grown through 2 inches of asphalt if conditions are correct.

Although not regulated in Kansas, Japanese fleece-flower and giant fleece-flower (*Fallopia sachalinenis*), including any cultivars (such as '*variegata'*) and hybrids such as Bohemian fleece-flower (*Fallopia ×bohemica*) were recently declared noxious weeds in Nebraska. Under the Nebraska Noxious Weed Control Act, the spread and propagation of Japanese and giant fleece-flower and any cultivars and hybrids must be controlled beginning February 1, 2011, including restrictions on shipments of the plants into Nebraska.

Rhizomes


Japanese fleece-flower cultivar 'variegata'

For more information concerning noxious weeds and quarantined plants please contact us at (785) 862-2180 or go to www.ksda.gov/plant_protection/content/360.

Nursery Pests

Glenn A. Salsbury, Entomologist

Question: What do the following insects have in common?

Red imported fire ant: an important pest both ecologically and as a human health issue.

Pavement ant: A highly aggressive ant that can sting and can be found in a number of nurseries in Northeast Kansas and one location in Southeast Kansas. The presence of this pest has resulted in complaints from purchasers of nursery stock.

Japanese beetle: The larva is a pest of turf and the adults are defoliators and will attack some fruit. In 2010 it was confirmed in a vineyard in Southeast Kansas.

Whitefringed beetle: An important pest of vegetables.

White pine pitch midge: Minor pest of white pines and is not known to be established in Kansas.

Chestnut brown bark beetle: This is a pest of pines and was intercepted for the first time in 2009. The status of this insect in Kansas is not known.

Oriental beetle: This is a turf pest and not yet known to be established in Kansas.

Juniper root weevil: Minor pest of junipers and has been intercepted several times but the status in Kansas is not known.

Rough strawberry root weevil: This is a pest of many kinds of plants and is established in several counties in Kansas. The adults are flightless.

Black vine weevil: Pest of a large number of plant species and is well established in Kansas especially in the Northeast.

Strawberry root weevil: As with the preceding two species there are a large number of host plants for this pest but it is less common than the black vine weevil.

Pale green weevil: The status of this pest in Kansas is not known but was intercepted one time from imported nursery stock.

Pales weevil: This is a pest of pines, especially newly lined out trees.

Various scales: A large number of species have been intercepted over the years which include the cactus scale and euonymus scale.

Other important pests such as the Carolina sawyer and the eastern 5-spined Ips may have been imported or moved into the state through natural migration but both of these insects are important pests of pines.

Answer: All have been imported into Kansas in nursery stock.

The above list is only a sampling of pests brought into the state in nursery stock. This is why it is important to purchase stock from reputable sources.

Colorado Japanese Beetle Quarantine

Jeff Vogel, Program Manager

The Colorado Department of Agriculture updated the Japanese beetle quarantine requirements in December 2010 for all nursery stock entering their state. Some of the changes may require a Kansas nursery to adjust their management strategy to facilitate shipment into Colorado. Please contact your area inspector for further information.

Retired Staff

Glenn Salsbury, state entomologist for the Kansas Department of Agriculture's Plant Protection and Weed Control program retired in March.

Salsbury worked 34 years for KDA. He holds a Bachelors and Masters from Kansas State College of Pittsburg. He was an area specialist in the south central and southwest part of the state for 19 years and then the state entomologist for 15 years.

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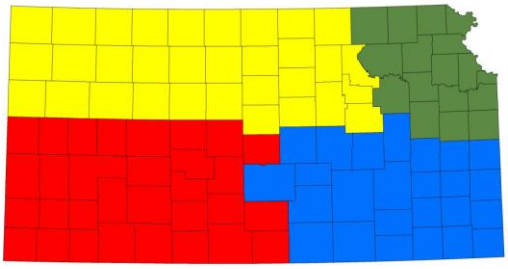

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